

AMENDMENT TO THE CLAIMS

Please enter the following amendments to the claims without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents as follows:

Please cancel claims 1-4, 11, 16, 22-23, 31 and 32, without prejudice, without admission, without surrender of subject matter, and without any intention of creating any estoppel as to equivalents.

1-32. (Cancelled)

Please add the following new claims:

33. (New) A recombinant adenovirus adding a new binding specificity to an adenovirus while retaining novel tropism, wherein said adenovirus comprises a fiber gene modified in the HI loop domain of the fiber knob by introduction of a ligand into said HI loop domain.

34. (New) The recombinant adenovirus of claim 33, wherein said adenovirus can achieve CAR-independent transfer.

35. (New) The recombinant adenovirus of claim 33, wherein said adenovirus further comprises an additional modification to said fiber knob, thereby ablating the native tropism of said adenovirus.

36. (New) The recombinant adenovirus of claim 33, wherein said modified fiber knob retains its ability to trimerize and retains its native biosynthesis profile.

37. (New) The recombinant adenovirus of claim 33, wherein said ligand is selected from the group consisting of physiological ligands, anti-receptor antibodies and cell-specific peptides.

38. (New) The recombinant adenovirus of claim 33, wherein said ligand comprises a tripeptide having the sequence Arg-Gly-Asp (RGD).

39. (New) The recombinant adenovirus of claim 33, wherein said ligand comprises a peptide having the sequence CDCRGDCFC (SEQ ID NO. 16).

40. (New) The recombinant adenovirus of claim 33, wherein the adenovirus vector encoding said adenovirus further comprises a therapeutic gene.

41. (New) The recombinant adenovirus of claim 40, wherein said therapeutic gene is the herpes simplex virus-thymidine kinase gene.

42. (New) The recombinant adenovirus of claim 1, wherein the native binding of the adenovirus is maintained.
43. (New) The recombinant adenovirus of claim 1, wherein the ligand is inserted into a homogeneous serotype fiber.
44. (New) The recombinant adenovirus of claim 43, wherein the adenovirus is an Ad5 adenovirus and the fiber knob is an Ad5 fiber knob.
45. (New) A method of increasing the ability of an adenovirus to transducer a cell, wherein the cell has native adenoviral receptors, comprising the step of: modifying the fiber gene in the HI loop domain of the fiber knob of said adenovirus by introducing a ligand into said HI loop domain according to claim 33.
46. (New) The method of claim 45, wherein said ligand is selected from the group consisting of physiological ligands, anti-receptor antibodies and cell-specific peptides.
47. (New) The method of claim 45, wherein said ligand comprises a tripeptide having the sequence Arg-Gly-Asp (RGD).
48. (New) The method of claim 45, wherein said ligand comprises a peptide having the sequence CDCRGDCFC (SEQ ID NO. 16).
49. (New) The method of claim 45, wherein said cell is a tumor cell.
50. (New) The method of claim 49, wherein said tumor cell is selected from the group consisting of *in vitro*, *in vivo* and *ex vivo*.
51. (New) The method of claim 45, wherein the adenoviral vector encoding said adenovirus further comprises a therapeutic gene.
52. (New) The method of claim 45, wherein native binding of the adenovirus is maintained.
53. (New) The method of claim 45, wherein the ligand is inserted into a homogeneous serotype fiber.
54. (New) The method of claim 53, wherein the adenovirus is an Ad5 adenovirus and the fiber knob is an Ad5 fiber knob.